- (iv) Subsequent to graduation, has had 4 or more years of full-time general laboratory training and experience of which at least 2 years were spent acquiring proficiency in one of the laboratory specialties:
- (3) For the subspecialty of oral pathology only, be certified by the American Board of Oral Pathology, American Board of Pathology or the American Osteopathic Board of Pathology or possesses qualifications that are equivalent to those required for certification:
- (4) Hold an earned doctoral degree from an accredited institution with a chemical, physical, or biological science as a major subject and
- (i) Is certified by the American Board of Medical Microbiology, the American Board of Clinical Chemistry, the American Board of Bioanalysis, or other national accrediting board acceptable to HHS in one of the laboratory specialties; or
- (ii) Subsequent to graduation, has had 4 or more years of full-time general laboratory training and experience of which at least 2 years were spent acquiring proficiency in one of the laboratory specialties;
- (5) With respect to individuals first qualifying before July 1, 1971, have been responsible for the direction of a laboratory for 12 months between July 1, 1961, and January 1, 1968, and, in addition, either:
- (i) Was a physician and subsequent to graduation had at least 4 years of pertinent full-time laboratory experience;
- (ii) Held a master's degree from an accredited institution with a chemical, physical, or biological science as a major subject and subsequent to graduation had at least 4 years of pertinent full-time laboratory experience;
- (iii) Held a bachelor's degree from an accredited institution with a chemical, physical, or biological science as a major subject and subsequent to graduation had at least 6 years of pertinent full-time laboratory experience; or
- (iv) Achieved a satisfactory grade through an examination conducted by or under the sponsorship of the U.S. Public Health Service on or before July 1. 1970: or

(6) Qualify under State law to direct the laboratory in the State in which the laboratory is located.

Note: The January 1, 1968 date for meeting the 12 months' laboratory direction requirement in paragraph (b)(5) of this section may be extended 1 year for each year of full-time laboratory experience obtained before January 1, 1958 required by State law for a laboratory director license. An exception to the July 1, 1971 qualifying date in paragraph (b)(5) of this section was made provided that the individual requested qualification approval by October 21, 1975 and had been employed in a laboratory for at least 3 years of the 5 years preceding the date of submission of his qualifications.

[58 FR 5233, Jan. 19, 1993]

§ 493.1407 Standard; Laboratory director responsibilities.

The laboratory director is responsible for the overall operation and administration of the laboratory, including the employment of personnel who are competent to perform test procedures, and record and report test results promptly, accurate, and proficiently and for assuring compliance with the applicable regulations.

- (a) The laboratory director, if qualified, may perform the duties of the technical consultant, clinical consultant, and testing personnel, or delegate these responsibilities to personnel meeting the qualifications of §§ 493.1409, 493.1415, and 493.1421, respectively.
- (b) If the laboratory director reapportions performance of his or her responsibilities, he or she remains responsible for ensuring that all duties are properly performed.
- (c) The laboratory director must be accessible to the laboratory to provide onsite, telephone or electronic consultation as needed.
- (d) Each individual may direct no more than five laboratories.
- (e) The laboratory director must—
- (1) Ensure that testing systems developed and used for each of the tests performed in the laboratory provide quality laboratory services for all aspects of test performance, which includes the preanalytic, analytic, and postanalytic phases of testing:
- (2) Ensure that the physical plant and environmental conditions of the

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laboratory are appropriate for the testing performed and provide a safe environment in which employees are protected from physical, chemical, and biological hazards:

- (3) Ensure that—
- (i) The test methodologies selected have the capability of providing the quality of results required for patient care:
- (ii) Verification procedures used are adequate to determine the accuracy, precision, and other pertinent performance characteristics of the method; and
- (iii) Laboratory personnel are performing the test methods as required for accurate and reliable results;
- (4) Ensure that the laboratory is enrolled in an HHS approved proficiency testing program for the testing performed and that—
- (i) The proficiency testing samples are tested as required under subpart H of this part;
- (ii) The results are returned within the timeframes established by the proficiency testing program;
- (iii) All proficiency testing reports received are reviewed by the appropriate staff to evaluate the laboratory's performance and to identify any problems that require corrective action; and
- (iv) An approved corrective action plan is followed when any proficiency testing results are found to be unacceptable or unsatisfactory;
- (5) Ensure that the quality control and quality assessment programs are established and maintained to assure the quality of laboratory services provided and to identify failures in quality as they occur;
- (6) Ensure the establishment and maintenance of acceptable levels of analytical performance for each test system;
- (7) Ensure that all necessary remedial actions are taken and documented whenever significant deviations from the laboratory's established performance specifications are identified, and that patient test results are reported only when the system is functioning properly;
- (8) Ensure that reports of test results include pertinent information required for interpretation;

- (9) Ensure that consultation is available to the laboratory's clients on matters relating to the quality of the test results reported and their interpretation concerning specific patient conditions:
- (10) Employ a sufficient number of laboratory personnel with the appropriate education and either experience or training to provide appropriate consultation, properly supervise and accurately perform tests and report test results in accordance with the personnel responsibilities described in this subpart:
- (11) Ensure that prior to testing patients' specimens, all personnel have the appropriate education and experience, receive the appropriate training for the type and complexity of the services offered, and have demonstrated that they can perform all testing operations reliably to provide and report accurate results;
- (12) Ensure that policies and procedures are established for monitoring individuals who conduct preanalytical, analytical, and postanalytical phases of testing to assure that they are competent and maintain their competency to process specimens, perform test procedures and report test results promptly and proficiently, and whenever necessary, identify needs for remedial training or continuing education to improve skills;
- (13) Ensure that an approved procedure manual is available to all personnel responsible for any aspect of the testing process; and
- (14) Specify, in writing, the responsibilities and duties of each consultant and each person, engaged in the performance of the preanalytic, analytic, and postanalytic phases of testing, that identifies which examinations and procedures each individual is authorized to perform, whether supervision is required for specimen processing, test performance or results reporting, and whether consultant or director review is required prior to reporting patient test results.

 $[57\ \mathrm{FR}\ 7172,\ \mathrm{Feb}.\ 28,\ 1992,\ \mathrm{as}\ \mathrm{amended}\ \mathrm{at}\ 68\ \mathrm{FR}\ 3713,\ \mathrm{Jan}.\ 24,\ 2003]$